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From social movement learning to sociomaterial movement learning? Addressing the possibilities and limits of new materialism

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Abstract

In recent years academic interest in social movement learning (SML) has flourished. *Studies in the Education of Adults* has arguably emerged as the premier international forum for exploring the links between adult learning and movements for progressive change. In parallel to this subfield, yet largely in isolation from it, *Studies* has fostered the development of sociomaterial approaches to adult education and lifelong learning studies. These approaches reflect a wider trend in the social sciences and humanities towards what has been termed 'new materialism'. In what follows, I develop SML theory by considering what such perspectives have to offer. Firstly, I explore the similarities and differences between so-called new materialisms and historical materialism. Secondly, I explore what happens when social movement learning is redefined as sociomaterial movement learning. The final part addresses the ethico-political questions raised when SML is understood in sociomaterial terms.

Keywords

social movement learning, historical materialism, new materialism, sociomaterial, post-humanism, social justice

Introduction

In recent years academic interest in social movement learning (SML) has flourished. *Studies in the Education of Adults* has arguably emerged as the premier

international forum for exploring the links between adult learning and movements for progressive change. In 2011 a special issue examined SML in a number of different countries and contexts: the Brazilian Landless Workers' movement, Argentinian workers' co-operatives, community organising of asylum seekers and refugees in the UK and food-based movements, to name a few (Hall *et al.*, 2011). Despite the diverse aims of these movements, each account of SML was united by the fact that it emerged from and informed collective struggles to alter the material distribution of resources and risks. To paraphrase Marxist geographer David Harvey, struggles over rights and recognition mean nothing without the ability to concretise them in the material practices of daily life.

In parallel to this subfield, yet largely in isolation from it, *Studies* has provided a platform for the development of sociomaterial and post-human approaches to adult education and lifelong learning studies (for example Zukas, 2009; Edwards, 2010; Fenwick, 2010). These approaches reflect a wider trend in the social sciences and humanities towards what has been termed 'new materialism' – a catch-all term for a nascent but undeniable intellectual movement calling for a radical rethinking of 'the nature of matter and the place of embodied humans within a material world' (Coole and Frost, 2010a, p. 3). Given that much SML emerges from material struggle for a better world, it is surprising that there has been no *systematic* attempt to foster dialogue between the SML literature and sociomaterial interpretations of adult education and lifelong learning.

In attempting to open up such a dialogue, I firstly explain the sociomaterial approach and ask what is new about the so-called new materialism that provides its wider intellectual context. Specifically, I ask how new materialism differs from historical materialism. This is important because for many with an interest in SML, Marxian historical materialism is a significant theoretical base informing their understanding of both social movements and the character of learning they generate. Secondly, I explore the possibilities raised by reframing social movement learning as sociomaterial movement learning. The principal task of this reframing is to interrogate the 'social' in 'social movement'. In doing this, power and agency is displaced and distributed, so that the entire notion of 'collective learning' is redefined to include non-human matter. Finally, I pose some ethical questions resulting from such a perspective.

A caveat before I delve into the discussion: many of the points made herein could be more fully developed. However, it is my intention to identify a number of salient points in order to resource what I see as a potentially fruitful dialogue. Relatedly, at the root of some of these debates lie difficult philosophical concepts and their attendant vocabularies. Certain concepts will be familiar to certain readers. In the spirit of this journal, I have tried to write as clearly and honestly as possible without losing what is important. However, to provide context and definition for everything would be impossible. As Edwards (2010, pp. 7–8) has argued, 'there is a tendency in the discussion of lifelong learning, and in relation to education more generally, to have to start from the beginning in everything that is written..., placing constraints on experimentation'.

Sociomaterial approaches and their new materialist underpinnings

Sociomaterial approaches to educational research draw from a dizzying array of disciplines and theories – '[actor-network theory] ANT... posthumanism, materialist feminism, practice-based theories, spatial theory, non-representational theory and complexity theory' – to give a non-exhaustive list of examples (Edwards and Fenwick, 2014, p. 2). The purpose of marshalling such an ensemble is, broadly speaking, to explore how matter matters, beyond what humans do with it, in educational contexts. Furthermore, Edwards and Fenwick (*ibid.*) contend that 'matter and the material is framed within an alternative metaphysics to that of... branches of Marxism'. This section engages with this alternative framing.

On my reading, Fenwick *et al.* (2011, p. 7) identify at least two common features uniting this ensemble under the banner 'sociomaterial approaches': 1) they are concerned with the formation of complex systems and the processes of boundary making that determine what is properly internal and external to any system; and 2) they 'trace interactions among non-human as well as human' components of systems.

The sociomaterial turn thus represents a post-human orientation. This is not an anti-human or dystopian orientation, but is more akin to what philosopher Todd May (2013, p. 11) calls 'a-humanism', which does not 'displace' the human so much as 'dissolve' it within heterogeneous material systems operating at the sub-human and supra-human levels.

What is important to note is that this turn is simply the educational manifestation of a resurgent interest in materialism across the humanities and social sciences, which seeks to question the obvious coherence of the human subject and the human exceptionalism that it implies (c.f. Coole and Frost, 2010b; Dolphijn and van der Tuin, 2012). New materialism is concerned with 'a raft of biopolitical and bioethical issues concerning the status of life and the human' as well as 'the relationship between the material details of everyday life and broader geopolitical and socioeconomic structures' (Coole and Frost, 2010a, p. 7).

Taken as a catch-all term, the locus of intervention in such post-human materialisms is diverse: 'for some it is about troubling the distinction between human and non-human animals..., for others posthumanism is about seeing the technological as an extension of human objectivity..., for still others, posthumanism is about interrogating humanity's role in environmental ethics' (Chiew, 2014, p. 52). In fact, it is unsurprising that the notion of a post-human materialism has been most fully developed as a concept through interdisciplinary work in the various 'studies' formations – animal studies, critical science studies, disability studies, gender studies, post-colonial studies, race and ethnicity studies – devoted to addressing various modes of domination and control justified by humanist discourses that patrol the boundaries of who and what has historically been (dis)counted as human.

This has required an ontological reorientation fit for addressing such concerns (Coole and Frost, 2010a, p. 7). To express it plainly, this reorientation is:

- post-structuralist
- non-dialectical
- non-anthropocentric

Therefore, the first step will be to explore how these distinguishing features separate new materialism from historical materialism. Before attending to this task, it is helpful to place the discussion in its necessary historical context. The neologism 'new materialism' partly arose as a political gesture by those who perceived that poststructuralist and feminist philosophy has, over the years, been *misrecognised* as a linguistic enterprise concerned with textual hermeneutics and deconstruction to the detriment of addressing actually existing material injustices (Alaimo and Heckman, 2008, p. 3; DeLanda, 2008, p. 160; van Tuin and Dolphijn, 2012, p. 20; St Pierre, 2013, pp. 652–4).

This claim of misrecognition requires a little unpacking. The label 'post-structuralism' denotes a critical engagement with structuralism. The basic structuralist 'position' derives from a number of unavoidably abstract propositions to do with part-to-whole relations: firstly, every system has a structure (even if hidden from 'surface appearances'); secondly, the parts that make up any structure have no deep down 'essence' outside their relations to one another, which are determined by a larger whole; thirdly, structuralist analysis tends to abstract systems in order to analyse their relations as though frozen in time (Assiter, 1984, p. 275; Howarth, 2000, pp. 26–8). For example, in the game of chess, the 'agency' of a rook is completely determined by its relations to other pieces within the rules and logic of the game. A key point is that these tenets have been applied not just to linguistics, but to mathematics, philosophy of science, biology, anthropology and sociology (Assiter, 1984, p. 273).

Therefore, on my reading, the new materialists would like to emphasise that *post*-structuralism sought to address the problem of how to account for change and historicity within structuralist accounts of 'systems', or 'bodies' whereby their component parts are reduced to 'internal' moments of a priori totalities (Howarth, 2000; DeLanda, 2006; Chea, 2010). However, a 'body' here could be anything: 'an animal, a body of sounds, a mind or an idea; it can be a linguistic corpus, a social body, a collectivity' (Deleuze, 1988, p. 127). As abstract as it might sound, this involved attending to the role that *external relations* played in producing change within any structured system, which is always historically contingent and incomplete.

Although the genealogy of new materialism is too nuanced to do justice to here, the philosophy of Baruch Spinoza and Gilles Deleuze either explicitly or implicitly provides the ontological grounding for much 'new materialist' or 'socio-material' scholarship. In fact, Dolphijn and van der Tuin (2012, p.151) go so far as to claim that 'Spinoza, and most of all the Spinoza of the *Ethics*, might very well be considered the first (the foremost) new materialist'.

Spinozan philosophy is said to be 'monistic' in that it affirms the unity of being expressed in an infinite number of attributes. The 'first principle' is 'a common plane of immanence on which all bodies, all minds, all individuals are situated' (Deleuze, 1988, p. 122). In this framework, a body is not defined by its 'organs' and 'functions'. Rather, these are the historically contingent results of kinetic and dynamic processes and the body is understood on these two axes (p. 123). On the kinetic axis, the body 'is the relations of motion and rest, of slowness and speed' of matter that determine its organs or functions. Intensive properties, then, are those such as speed, temperature, pressure and so on, which drive flows and processes and at critical thresholds produce spontaneous qualitative change. In

other words, the actualised qualities of any complex system arise through *intensive processes*.

On the dynamic axis, a body is defined by its capacities to affect and be affected by other bodies. What can it do when thrown into external relations with other bodies? (ibid.). Three important concepts follow from Spinozan thought, which underpin sociomaterial thinking. Firstly, no foundational distinction is made between artifice/nature, human/non-human since distinctions between bodies are analysable in terms of kinetic and dynamic differences between inter-related matter (ibid.).

Secondly, this leads to an affirmative theory of difference understood on its own terms, so to speak. That is, difference is not derivative of a larger identity to which a body 'belongs'. For the reader unacquainted with Spinoza and Deleuze, I ask that you accept that this concept, although elliptical, is foundational. Since it is foundational, I have to touch upon it, despite offering very little explication. Since the unity of all matter can give rise to a potentially infinite number of modes, difference is singular and prior to representation. In this view, negation is 'not the motor', but rather 'negation arises in the wake of affirmation' of singular difference (Deleuze, 2009 [1968], p. 67). Negation only becomes possible when, rather than understanding the body as an intensive and dynamic process, the 'abstract idea' takes over, and relations are understood in the context of 'an essential trait while disregarding the others (man as an animal of erect stature, an animal that laughs, that speaks, a featherless biped, etc.)' (Deleuze, 1988, p. 45).

Third, the Spinozan distinction between ethics and morality is significant. New materialists and sociomaterial educationalists are all indebted to the Spinozan idea that the 'good' for a body is that which increases its capacities to affect and be affected and what is 'bad' is that which decreases its capacities to affect and be affected. This means that 'an act is bad when it directly decomposes a relation, whereas it is good whenever it directly compounds its relations with other relations' (p. 35). One well-worn example is that of poisoning, where a poison joins with the blood in order to cause it to enter into 'relations that characterise other bodies (it is no longer blood)' (ibid.). The relations between the poison and the blood may 'agree' in that they compound to make something new, but the act is 'bad' for the poisoned person in that it decreases her ability to affect/be affected. I will ask some questions of this view in the final section.

Overall, the simultaneously political and ontological gesture of this Spinozan–Deleuzian position is to provide an account of the synthesis of the properties of any system or whole in order to show that other worlds are always possible, since 'you do not know beforehand what a body or a mind can do, in a given encounter, a given arrangement, a given combination' (p. 125). This moves us beyond what materialist philosopher DeLanda (2006) calls 'organismic metaphors', where the component parts of wholes (think of organs in a body) are only understood in terms of their relation as parts of the functioning totality. In this conception of wholes, relationships are 'logically necessary', which is why it is possible for dialectical materialists to think of differences as contradictions (unities of opposites), and not just as differences.

This latter understanding of difference is exemplified in SML studies by Marxists such as John Holst, who reasons that the task of education in the context of social movements of the urban poor, the dispossessed, the global precariat, is

to move from an 'objectively revolutionary' situation, to one in which people surplus to the requirements of capitalism move to a state of 'subjective' recognition of their situation. Holst's SML theory is a good example of the idea of the internality of relations at work:

When we think... in terms of internal relations, one can see how the existence of oppressor classes and nations is incumbent upon the existence of oppressed classes and nations; one pole of the dialectic cannot exist without the other (Holst, 2011, p. 123).

In this conception, the act of learning is necessary dialectical, in that difference must emerge through negativity and is thus subordinated to the identity of the whole. By contrast, new materialists take the position that what appear as discrete elements are actually emergent properties. In this view, the *actual* properties of any system or whole are inhabited by a *virtual* capacity to be destabilised through external relations with other systems or wholes. By virtual, is meant a space of possibilities at any given moment that is real but not actual (DeLanda, 2006).

The most popular political exposition of this view, in relation to Holst's discussion of the global precariat, is found in Hardt and Negri's concepts of *Empire* and *Multitude*, where the global disenfranchised 'Multitude' and the diffuse global power of 'Empire' are not a dialectical unity of opposites at all. In their view, 'rather than seeking the kind of guarantees that (even the appearance of) unity provides, we should emphasise the risks, uncertainties and possibilities of our situation' (Hardt and Negri, in Brown and Szeman, 2005, p. 381). This, in turn, leads to a very different conception of what SML in and against 'Empire' might look like: much more provisional and experimental but also seemingly more ill-defined. More on this later.

So far, I have conveyed the view that the 'newness' of new materialism was partly a political and rhetorical gesture. I have also touched upon its poststructuralist foundations. Yet, I still find myself asking, is this reason enough to distinguish it from the de facto 'old' 'dialectical', or 'historical' materialism? This not to be resolved here, but I can touch on two pertinent points to resource further dialogue.

1. If historical materialism understands material reality to be 'dialectical', it should be noted that there are at least two quite distinct understandings of dialectics.
2. The degree of attention given to the agency of non-human things-in-themselves may be the only thing that truly sets 'historical materialism' and 'new materialism' apart.

In my experience, the phrase 'dialectical' is often used without a clear shared understanding of its different uses and meanings in a way which hinders dialogue. Dialectic can refer to: 1) thinking of relation and difference in terms of contraries and contradictions 'recuperated' or 'sublated' in a final unity; 2) simply a *relational* understanding of all material reality (Hardt and Negri, in Brown and Szeman, 2005, p. 381; Bryant, 2011, p. 75). I have touched on the former understanding of dialectics but not the latter.

The best exposition of the latter position that I have come across to date is from Marxist geographer David Harvey (1996), and it is hard not to be struck

by its proximity to new materialism and the sociomaterial. Harvey (1996, p. 50) states that, '[t]hings are internally heterogeneous at every level...[and] there is no 'basement' to experience'. For Harvey (ibid.), dialectical reason is underpinned by a 'deep ontological principle' that 'elements, things, structures, and systems do not exist outside of, or prior to the processes, flows, and relations that create, sustain, or undermine them'. Historical materialism understood in this way is what new materialists refer to as *process ontology*. It should be noted that process ontology – the notion that 'beings do not pre-exist their relatings' – has also been cited as a foundational principle by new materialist thinkers (Dolphijn and van der Tuin, 2012, pp. 161–4). The result is that historical materialism understood this way (Harvey, 1996, p. 48; Gramsci, 2011 [1930–32], p. 190) and new materialism (Dolphijn and van der Tuin, 2012c, p. 48) both espouse an ontology in which mind/matter, nature/culture, theory/practice, subject/object dualisms have no purchase.

However, my own reading suggests a genuine ambiguity here. On the one hand, new materialists reject the concept of negation in dialectical thinking, arguing that a 'monist' metaphysics implies an 'affirmative politics'; a rethinking of critique as a process of 'responsible experimentation' through which newness emerges (Latour, 2004, p. 248; Braidotti, 2013, p. 13; Edwards, 2010, p. 10). In other words, critique must 'work through practices' rather than being a mere 'unveiling of power relations' (Edwards and Fenwick, 2014, p. 3). I find it reasonable to suggest that a point of dialogue might be to ask how this differs from the Marxist concept of praxis. In any case, this view relies on understanding dialectics in the first sense and in ignoring the second. In doing so it seems to foreclose the possibility of a deeper engagement with historical materialism.

On the other hand, even a proponent par excellence of the second understanding of dialectics such as David Harvey, falls back on contradiction and negation as the motor of change. Like the new materialists (Latour, 2004, p. 244; Dolphijn and van der Tuin, 2012, p. 90), Harvey (1996) draws on the process philosophy of Alfred North Whitehead in his expositions of Marx's dialectical thought. In fact, by the publication of 2006's *Limits to Capital*, he 'increasingly see[s] Marx as a magisterial exponent of a process-based philosophy rather than a mere practitioner... of Hegel's logic' (p. xv). In fact, by 2010 Harvey (2010, p. 128) likens Marx's understanding of capitalism to a 'socio-ecological totality' – what the philosopher Gilles Deleuze calls 'an "assemblage" of elements', composed of relations that are 'fluid and open, even as they are inextricably interwoven with each other'.

The issue is that in the next breath, he reaffirms his belief that the dynamics between parts and whole must be understood through the contradictions generated (ironically contradicting the singular purpose of Deleuze's project as laid out in *Difference and Repetition* (2009 [1968])). This is made possible, in essence, by abstracting any emergent totality from its external relations in order to then analyse the mutually constitutive relations between the parts and said totality. In other words, in order to attend to the permanencies of lived experience, one needs to form closed systems in order that any experimental activity is intelligible.

For example, in Harvey's latest book *Seventeen Contradictions* (2014, p. 7) he abstracts *capital accumulation* from the wider system of *capitalism* (understood by him as the 'social formation in which processes of capital circulation and accumulation are hegemonic') in order to understand its own specific 'internal

contradictions' such as use-value/exchange value. One who has read Harvey's elegant accounts of such dynamics can attest to their seductive explanatory power. And it is the lack of willingness to engage with a daily experience seemingly teeming with 'violent contradictions' that brings critics of new materialism to accuse it of being 'political ineffectual' holism (Braidotti, 2013, p. 55). Historical materialists, such as Harvey, would therefore presumably argue that what is under emphasised in the monistic new materialism are the powers enacted through enduring assemblages. However, the question remains whether dialectical contradiction and negation furnishes us with an adequate basis for understanding 'morphogenesis' (understood as the birth of form, irrespective of whether the entity in question is geological, biological, linguistic, political and so on), or whether it is an *a priori* mode of thought superimposed onto it.

If, for argument's sake, we can find some reconciliation between historical materialism and new materialism in their adherence to *process ontology*, such a view guards against attributing misplaced concreteness to that which is produced through flux, flow and relation. Thus, in historical materialism, as in new materialism, the critical gesture lies in demonstrating that what appears to be concrete and given is the result of contingent relational processes that might have been, and could be, otherwise. For example, the critique of commodity fetishism rests on the idea that a material commodity is in fact the product of historically specific networks of dynamic social relations.

However, there is an important difference. As Harvey (2006, p. xx) is at pains to point out, 'Marx held (somewhat surprisingly) that value is objective but immaterial', and consequently it 'hides its relationality within the fetishism of commodities'. I think that this curious statement is key to understanding the difference between these two perspectives. It means that value in historical materialism is completely contingent upon social relations of power between humans and that this fact is hidden from us when faced with the material products of labour, assigned exchange-values. Harvey (*ibid.*) argues that the 'history' in historical materialism is concerned with social relations of power, which are not directly measurable and therefore require representation in the money form, which allows the private accumulation of social power. This focus, he contends, is what distinguishes it from natural materialism.

This brings me to the final point in this section. What does it mean to claim that *immaterial* social relations produce *objective* effects? What is the 'social'? On this point, proponents of sociomaterial approaches to education turn to Latour (2005, p. 68), who argues for a shift in thinking from a 'sociology of the social', to a 'sociology of associations', in which 'society' is replaced by 'collective', understood as an ecology of human and non-human 'actants'. Relatedly, the sociomaterial theorists turn to Jane Bennett's (2010) argument for reconsidering 'publics' as 'agentic assemblages' in which 'vibrant materialities' – including various forms of non-organic matter – 'participate'. Bennett (p. 2010, p. 99) argues that a measure of *anthropomorphism* is necessary in order to counter *anthropocentrism*. In other words, highlighting 'thing power' is a device which might be used to 'catalyse a sensibility that finds the world filled...with various materialities that form confederations'.

Thus, what really seems to set new materialism and the attendant sociomaterial turn in education apart from historical materialism is that it takes seriously

the proposition that non-human matter has agency, in a manner of speaking. Fenwick and Edwards (2013, p. 50) argue that this key difference is evident in various forms of education for social justice, where 'what is material is often taken to be the background context against which human educational practice takes place or within which it sits, and material tools are often taken to be simply tools that humans use or objects they investigate'. This sociomaterial approach is fundamentally different than asking how technological developments, processes of geographical development and spatial arrangements contingently shape social relations, otherwise there would be no difference from historical materialism, which has always attended to such dynamics. Rather, it does away with the reified generality 'social' altogether (Edwards, 2010, p. 9). This poses two questions. Firstly, how does this help us theorise SML? Secondly, '[w]hat does education for equity and justice look like if we approach it as vital materiality?' (Fenwick and Edwards, 2013, p. 58). It is to these questions I now turn.

Sociomaterial movement learning?

Edwards (2010, p. 13) has suggested that a post-human conception of lifelong learning would 'position learning as a gathering of the human and non-human in responsible experimentation'. This section interrogates this claim more closely in the context of SML. In the most general sense, it is common to understand social movements as sustained processes of collective action undertaken by networks, or alliances, of heterogeneous individuals and groups, in opposition to some aspects of the status quo. The 'movement' component of 'social movement' is entirely compatible with sociomaterial analysis, since in process ontology any entity is a singular and ephemeral *event*. 'Movement' connotes the dynamic capacity to affect and be affected.

However, since there are many species of collective action, what distinguishes a movement from, say, anomic protest or a mere coalition, is the process of 'collective learning' involving the development of collective identity, guided by 'norms of social justice' (a shared worldview), a sense of 'solidarity' and knowledge pertaining to the mobilisation of material and cognitive resources (Kilgore, 1999). In this conception, the 'collective' in question is a gathering of humans. After all, in what meaningful way can non-human things exist in 'solidarity' *with* humans?

On the other hand, sociomaterial movement learning would conceive of the 'collective' in this 'collective learning' as *inclusive* of the non-human 'actants', which enable such practical 'social' activity. To replace 'social movement' with the term 'sociomaterial movement' acts as a critical gesture with the intention of flagging up the extent to which the immateriality of the 'social' in historical materialism operates as a reified generality, which does not explain, but requires explanation.

The idea of a society has become in the hands of later-day 'social explainers' like a big container ship which no inspector is permitted to board and which allows social scientists to smuggle goods across national borders without having to submit to public inspection (Latour, 2005, p. 68).

Latour is *not* saying that large emergent entities are fantasies. He *is*, in effect, saying at every turn you must 'show your work' and dispense with all reified

generalities. He finds it 'absurd that we recognise two different kinds of reality: one for hard scientific fact and one for arbitrary social power' (Harman, 2009, p. 22). All forms of power require complex chains of mediation at every turn and since, for him, everything exists on the same 'metaphysical footing', any conceivable 'thing' – a placard, a pen, a shoe, a bicycle chain, a cinema ticket, a hedgehog – that 'modifies a state of affairs by making a difference is an actor – or, if it has no figuration yet, an actant' (Latour, 2005, p. 71). As a result, the act of sociomaterial movement learning rather than social movement learning would always be partly an act of what is termed *translation*. Since knowledge emerges through chains of mediation (books, databases, flipcharts, rooms, tablets, fibre optic cables, and so on), the mediating objects are properly constitutive of the learning event.

Why might this be useful to understanding contemporary SML? Firstly, the collective learning generated through movements such as Occupy, Los Indignados and the Slum/Shack Dwellers International is not explained by social ties or forces, but rather these social ties or forces are made possible through multiple acts of translation between megaphones, occupied places, fibre optic cables, mobile devices and so on. Secondly, 'things' and 'spaces' can be imagined as having their own affective capacities that generate certain regimes of attraction operating beyond human intentionality. Thirdly, dispensing with the notion that humans act/behave and the rest of the world (the environment) is acted/behaved upon, *should* result in more thoughtful and modest interventions and experiments that council against the valourisation of the enemy as well as collective action against the enemy. In other words, it is difficult to occupy, protest or take direct action against an abstraction.

Having struggled to find examples from the SML literature with which to populate this discussion, three follow. McFarlane (2009; 2011) studies the Slum/Shack Dwellers International (SDI) as a 'learning movement' based on the translocal exchange of 'knowledge, ideas, materials, practices' across sites (2009, p. 561). Key to McFarlane's account of the learning taking place is the sociomaterial concept of 'translation', which emphasises 'the agentic capacities of materials in producing knowledge and learning' (ibid.). In paying attention to 'who or what has the capacity to assemble' (p. 567), McFarlane is attentive to both the translating role of charismatic 'middle-class activists...with formal educational attainments' as well as 'full-size model houses' that are exhibited in places such as the lobby of the UN in New York, in order to 'hijack a middle-class activity', 'generate discussions over land tenure to construction' and 'put the capacities and the skills of the poor on public demonstration' (p. 563). The point being that these model houses are as much influential actants as the middle-class activists. McFarlane (2011, p. 368) also recounts how urban activists from the SDI utilised railway tickets, wires and stones in order to manipulate phone networks in Mumbai, thereby gaining free access to coordinate their actions and blocking the phones of ministers when organising protests. For McFarlane, the improvised systems of tickets, wires, stones, as well as the phone networks themselves, were *constitutive* of tactical movement learning.

The second example focuses on the administrative practices of a social movement organisation called the Tibet Support Group (TSG) (Davies, 2011). Davies's ethnographic account focuses on the 'temperamental' office franking machine 'at the centre of an assemblage of individuals with the requisite skills to make it

work' (p. 279). He highlights how the machine as an actant plays an important translating role essential in sending mailshots and so on, so that the wider public learns about their campaigning activity (ibid.).

The third example focuses on an act of student protest, namely locking the university gate as post-human learning' (Zielinska *et al.*, 2011, p. 255). The participant-authors described direct action triggered by the erection of fencing at the University of Gdańsk, which particular student-activists interpreted as an attempt to transform the university into a gated community. As the fencing was under construction during a university open day, activists locked the gate of the fence, thus 'forcing masses of people coming from trams to look for gaps in the still unfinished structure' (p. 256). The authors assert that the 'experiment' gathered 'people and things together' – 'students, activists, surveillance cameras, the banner, leaflets, the gate and so on – into a 'collective', thereby convincing 'the gate to play an active role' and calling people to learn without their consent' (ibid.).

For me, these 'micro' examples of sociomaterial movement learning provoke an important question: why do we have to assert the *agency* of objects in order to appreciate their necessary material role in learning processes? Moreover, is this not all a little parochial and banal? Traditionally, the learning that social movements generate has been understood to be about what Paulo Freire (1972) called 'ontological vocation': that is, social movements through their praxis ask the big awkward questions about what it is to *be human*. However, these ontological questions are about being *as human*, not being *as such* (Bryant, 2011, p. 35).

What is to be gained from this ontological wrangling about being *as such*? One reason that sociomaterial thinkers such as Bryant (ibid.) claim is because effective learning in social movements surely relies on a sound understanding of being as such, and how it structures the realm of the possible. Allowing for speculation, historical materialists might suggest that the Gramscian notion of an analysis of the balance of forces between coercive material and juridical power in political society and cultural power in civil society 'has this covered'. However, it is highly doubtful that Gramsci seriously considered the agency of objects.

Yet all of this begs that question hinted at in the first section of this article: namely, is the only alternative to ineffectively directing our ire at big abstractions (capitalism, neoliberalism, climate change and so on) collapsing all analytical distinctions? Historical materialists would argue that the 'countless stale dualisms' – nature/culture, local/global, society/technology, society/space – that sociomaterial thinkers cast 'by the wayside' (Harman, 2009, p. 66), are analytically necessary in order to demystify the various hybrid webs in which we are entangled. For example, radical geographers such as Doreen Massey, David Harvey and Ed Soja use the concept of 'socio-spatial dialectic' to describe situations where a number of individual 'socially' planned spatial arrangements end up being thrown together in ways that exceed their original intentions, generating emergent 'spatial' properties that in turn create unexpected social uses of urban space.

The ambivalence of this sociomaterial approach of ontological flatness is highlighted by historical materialists who are frustrated at the seeming ignorance towards the ways in which a Marxist analysis of fetishism reveals how technologies are the product of exploitative social relations (for example Hornborg, 2014, p. 130):

Every 'technological' solution is ultimately a social relation in the sense that it will have implications for the societal distribution of the burden of problem-solving. The car or

computer that may save its owner time represents losses of time for the myriad workers (such as in mines or oil fields) whose congealed labour it represents. Moreover, to the extent that modern technologies make possible a more efficient use of urban or agricultural space, for those segments of global society who can afford it, it is important to consider that they may represent losses of natural space (such as for strip mines or oil fields) elsewhere on the planet.

Anticipating such critique, sociomaterial thinkers return to the fray with the notion of sociomaterial movement learning as a process of responsible experimentation (Edwards and Fenwick, 2014). Critique, they submit after Latour, has 'run out of steam' (ibid.). 'Educational and social researchers', they argue, 'have worked very hard to reveal the machinations of capitalism', but have 'more or less successfully avoided changing the existing reproductions of power and inequalities despite these critiques' (p. 4). Instead, Latour and his educational exegetes seek to reinvigorate the notion of critique as affirmative; as assemblage; as 'tracing lines of possibilities' (p. 18), through engaging in a 'rhizomatic' micropolitics, to speak with Deleuze and Guattari. Since – to return to the Spinozan roots of the conversation (see first section) – we never know in advance what 'bodies' are capable of, learning as an experimental encounter is unpredictable. In the words of Deleuze (2009 [1968], p. 241), 'learning', if it is to be worthy of the name 'tears us apart' and 'demands the very transformation of our body and our language'.

Of course, this conception of collective learning through experimental micropolitical practices is not at all a foreign concept to contemporary activism. For example, Scott-Cato and Hillier (2010) analyse the learning of the Transition Towns movement in precisely this way. The Transition Towns movement, as they explain, is premised on community micropolitics as a response to the failure of 'macro' politics to tackle the twin realities of climate change and peak oil. A principal of the cultural politics of the movement is that collective learning and 'social innovation' doesn't emerge through negation (protesting 'against'), but through affirmative and open translocal social experiments; multiple loosely networked assemblages, through which successful innovation spreads 'rhizomatically' (ibid.). For example, as Scott-Cato and Hillier write (p. 878):

Akin to Deleuzian 'minor politics'...a favourite method of the Transition movement is Open Space (<http://www.openspaceworld.org/>), where the agenda for a day-long meeting is set by those who arrive in the morning and there is a harsh Darwinism in the choice of discussions, because people move from one person's discussion group to another if they feel their energy flagging.

In fact, it barely needs pointing out that the concepts of 'open space' and 'horizontal' organising are key tenets of many contemporary movements, both community-based and direct action-based. However, this is where I become ambivalent about sociomaterial rhetoric. In following chains of translation and mediation between objects we never leave the local level. This at times brings some sociomaterial analysis close to arguments for expunging the notion of scale from politics altogether and reifying certain other spatial master concepts such as 'flatness', 'open space', 'rhizomatic', and 'horizontal'. There are two main issues with this.

Firstly, these spatial tropes act as ideal images to live up to and present to the wider world. However, there is a recognised gap between rhetoric and reality

here. For example, Castells (2012, p. 223) argued that Occupy represented a 'parenthesis' in the rhythms of capital accumulation experienced in daily life. Within this parenthesis, responsible experiments and gatherings no doubt generated sociomaterial movement learning. However, many people by virtue of their life circumstances were structurally excluded from such practices. This is a problem, since 'the only politically correct form of organisation in many radical circles is non-state, non-hierarchical and horizontal' (Harvey, 2012, p. 69). A politically naïve voluntarism lies behind this orthodoxy.

The second related issue is that, in my view, I agree with Harvey (*ibid.*) that the only way to address this is to reintroduce an analysis of spatial and temporal scale. Feasible ways of organising in order to manage a commons at one scale, for example managing local water resources through direct democracy, are not necessary feasible at another, such as climate change politics. However, if we understand scale in terms of increasing complexity (assemblages of assemblages of assemblages...) rather than 'size', as DeLanda (2006) does, then there need not be any incommensurability between the new materialists and the historical materialists on this matter.

In this section, I have discussed the idea of sociomaterial movement learning. I concede that there is value in insisting on 'bottom-up' morphogenetic accounts that don't introduce reified generalities that require explanation, rather than explaining. However, I also recognise the need for analytical distinctions and scalar analysis in order to devise effective strategy, even if they are heuristic. To me, there is a danger of labouring the point to the extent that we come close to denying large-scale emergent entities that are objectively real but somewhat beyond our immediate experience. Moving on to the final section, I would like to touch upon the ethical dimensions of this interpretation of SML as an unpredictable experimental activity that asserts the quasi-agency of 'things'.

Sociomaterial justice?

It still remains to answer the question '[w]hat does...equity and justice look like if we approach it as vital materiality?' (Fenwick and Edwards, 2013, p. 58). It is to such issues I now turn. Fenwick and Edwards (2013, p. 58) argue that the 'point is not to banish human meanings, subjectivities, desires, values and so forth...When agency is understood as a distributed effect produced in material webs of human and non-human assemblages, some argue that a more responsible, ecological politics is possible' (p. 58). To understand this, we must return to the Spinozan concept of ethics, which indeed provided a source of inspiration for deep ecologists such as Arne Naess. What is good is the event through which bodies 'can compound directly to form a new, more extensive relation' and a more 'intense capacity or power' (Deleuze, 1988, p. 126). Responsibility then becomes, after Karen Barad, 'respons-ability', designating the 'possibilities of mutual response' (Dolphijn and van der Tuin, 2012, p. 55).

However, since this view necessitates a certain relinquishing of control, it is important to be aware that the new materialist reading of Spinoza is idiosyncratic. Given the complexity of the world and the encounters that constitute it, almost any event will be both good and bad in the Spinozan sense. It has been argued by scholars of Spinoza that since 'bodies', 'collectives', 'confederations',

and 'assemblages' continually experience states of being drawn to a simultaneous 'increase and a diminution' of powers, that the result is a kind of entropic 'sad destiny of the passions' (Macherey, 1996, p. 155). In other words, Spinoza can be interpreted as a theorist of alienation rather than agency. The problem is one of distinguishing, adjudicating and establishing relevant justice relations. Since Spinozan ethics are completely at odds with heroic accounts of human agency, the political application of it, as seen in Hardt and Negri's (2006) self-organising *Multitude*, has been critiqued for the failure of its woolly messianic rhetoric to provide any feasible basis for political strategy (for example Laclau, 2005, p. 243; Mouffe, 2005, p. 107–10). In fact, Hardt and Negri's interlocutors have proposed the political necessity of the idea of the unitary political subject, even if it can never be achieved. For example, Brown and Szeman (2006, p. 381) draw an analogy between the mind and political assemblages: they argue that although the unified Cartesian subject is an illusion produced by a brain with no centre of command, the mind 'illusion' is still functionally necessary. In the same way they ask, is it not so that *collective identity* is necessary for the objective, if decentred, function of any political body?

Regarding the 'non-human' more specifically, Bennett (2010, p. 109) predicts that limiting the notion of a 'public' and the 'good life' to the human will soon seem as 'extravagant as when the Founding Fathers denied slaves and women the vote'. But how far are we willing to go and what connections matter? Through what calculus might we be able to identify the appropriate locus of intervention in a world where any object is equal in principal but not in fact. Can this be anything more than a huge overstatement? If the difference between a movement and anomic protest is the solidarity generated through collective learning, can there be any such thing as democratic reciprocity or solidarity between humans and other configurations of organic and non-organic matter?

On this last question, sociomaterial theorists Fenwick *et al.* (2010, p. 175) cite approvingly Bennett's (2010, p. 107) encounter with political theorist Rancière and his distinction between the police order and the political moment. So let us briefly engage with this encounter. Rancière understood the police order to be 'an order of bodies that defines the allocation of ways of doing, ways of being, and ways of saying, and that sees that those bodies are assigned by name to a particular place and task' (1999, p. 29). A political act is one which disrupts or interrupts the police order. The realm of institutional politics in this view is entirely of the police order, while the 'political' is characterised by sporadic interventions that test the boundaries of police order. A political agent is then 'an operator that connects and disconnects different areas, regions, identities, functions, and capacities existing...in the nexus of distributions of the police order' (p. 40). So far, so sociomaterial. And this is what prompts Bennett (2010, p. 107) to ask what stops us from considering any material object that fulfils these functions as a political agent.

But can we define solidarity as the coming together of disparate elements into an assemblage and leave it as that? This creative use of Rancière runs counter to his very specific suggestion that political solidarity requires a presupposition of equality based on the mutual recognition of ability to apply higher cognitive function to engage in decision making, debate, take account of our surroundings and act in a coordinated fashion as a result (May, 2013, p. 15). There may be, for

example, a degree of *social* solidarity between humans and other species based on mutual dependence and shared experience, but there is no *political* solidarity (ibid.). Moreover, there is no solidarity whatsoever between humans and non-organic matter beyond an anthropomorphic metaphor. It is not clear to me that post-human materialism and the concept of political solidarity can co-exist.

Ultimately, for historical materialists, it may be that the provocative inversion of fetishism and the notion of '*response-ability*' goes too far by obfuscating social *responsibility*. It may be that these postures have generated the sense that there is a lack of shared politics between those interested in SML and the new materialism. It may be such a lack that has prevented dialogues, like this one, from taking place to date. For my part, I reserve my right to ambivalence; I am 'still confused but on a higher level', as the saying goes. I merely hope that this three-part conversation – 1) comparing historical and new materialism; 2) trying to sketch out the idea of sociomaterial movement learning; and 3) posing some ethical questions – does its job, even if clumsily, by generating further dialogue.

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